## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1996

In re Application of: JOSEPH RUBON

Serial No.: 08/468,880

Filing Date: 06/06/95

For: KNITTABLE YARN AND

Docket No.: 10-142C3D1

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## SUPPLEMENTAL RULE 132 DECLARATION

KOV - 1 1996 **BOARD** OF PATENT APPEALS AND INTERFERENCES

The purpose of this Declaration is to correct an error in reporting the Tensile Modulus of several materials in a prior Declaration dated February 5, 1996. The error in the prior Declaration was first brought to my attention in late May or early June 1996, when I realized the magnitude of the reported values was inconsistent with Tensile Modulus in units of grams per denier ("g/d"), and was consistent with values of Tensile Strength in units of pounds per square inch ("psi"). Upon further review, I discovered the values for Vectran HS and Vectran M were incorrect Tensile Strength values. I believe the information reported below represents correct approximate values for the Tensile Modulus in units of g/d, Tensile Strength in units of psi and Tenacity in units of g/d of the following materials:

> La Lacol No. Em 2001 03 969 45 ruby certify that this paper is being deposited with the 5. Postal Service as Express Mail addressed to the Cant Commissioner for Patents, Washington, D.C. 20231

MATERIAL	TENSILE MODULUS (G/D)	TENSILE STRENGTH (PSI)	TENACITY (G/D)
KEVLAR	500	425,000	23
SPECTRA	1400**	375,000	30
VECTRAN HS	525	412,000*	23
VECTRAN M	425	161,000	<del> </del>
POLYESTER	55**	160,000	9

<sup>\*</sup> Converted from units of "ksi" believed to be equivalent to thousands of pounds per square inch.

The values for the properties of Kevlar, Spectra and polyester are taken from "Textile World Manmade Fiber Chart 1990" published by Maclean Hunter Publishing Co., 1990. The values for the properties of Vectran HS and Vectran M are taken from "Vectran Liquid Crystal Polymer Fiber" published by Hoechst Celanese, 1990.

It is clear that the reported values for Tensile Modulus in units of grams per denier in the February 5, 1996 Declaration are incorrect. Although I cannot with certainty assert how this error occurred, I note that Tensile Modulus and Tensile Strength for Vectran M and Vectran HS are reported underneath each other in the publication upon which I am relying for the values reported herein. Purther, I note this publication presents a table of values for Tensile Modulus and Tensile Strength, both in units of g/d and in units of psi, creating the possibility that the error arose as a result of transposing properties off of the publication table. The error sought to be corrected by this Declaration is an error regarding published properties of various materials, and is not an error as to information available only to me.

<sup>&</sup>quot;Values of "Average Stiffness, g/d" believed to be substantially equivalent to Tensile Modulus, g/d.





The conclusions contained in paragraphs 12 and 13 of the original Pebruary 5, 1996 Declaration are not changed by this correction. In particular, I was not able to predict from these published physical characteristics that Vectran M would be cut resistant. It was my belief, and to my knowledge, the belief of others, that the cut-resistant property of Kevlar, Spectra and Vectran HS was due essentially to their high tenacity.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

Dated: 8229

Joseph Humme

SALLY A. HOVEY
NOTARY PUBLIC, STATE OF ONIO
Recorded in Erie County
My Comm. Expires Oct. 28, 1998